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The connector arrangement 3 according to the arrangement shown in the figures comprises fixed contact means 3a arranged in one module unit 2 and mobile contact means 3b arranged in the other module unit 1. When the module units 1 and 2, and thereby the contact means 3a, 3b are moved close to one another, the mobile contact means 3b moves so that it comes into contact with the immobile contact means 3a as a result of magnetic force. In practice, the module units 1, 2 are usually moved close to each other in such a manner that one module unit 1, the vaporiser casing of the anaesthetic unit in the example of the figures, is stationary, and the other module unit 2, the anaesthetic vaporiser cassette, is moved so that it comes into contact with the module unit 1.

Arrow N in FIG. 1 illustrates the direction of movement of the module unit 2 in relation to the module unit 1 when they are connected to each other. The basic idea is that when the module unit 1 moves in the direction of arrow N so that the contact means 3a, 3b come close enough to each other, magnetic force pulls the mobile contact means 3b into contact with the immobile contact means 3a. This situation is illustrated in FIG. 2. The magnetic force can be generated by the use of with a magnet member 4 arranged in the mobile contact means 3b and magnetic material, such as a magnetic metal, arranged in the immobile contact means 3a. If the reaction distance L of the connector arrangement is to be increased, a magnet member can also be arranged in the immobile contact means 3a, such as in the space 5, as shown in FIG. 4.

In the example of the figures, the direction of motion S of the mobile contact means is transverse to the direction of motion N of the module unit 2. An advantage of the solution is, for example, that when the contact is created, between the contact means 3a and 3b the contact surfaces rub against each other for a moment, since the module unit 2 moves in direction N. This keeps the contact surfaces clean. Naturally, the invention can also be implemented so that the direction of motion of the moving contact means is parallel with the direction of motion N of the module unit 2, as illustrated in FIG. 3.

In the example of the figures the contact means 3b are supported by means of a flexible member 8, which gives away while magnetic force pulls the mobile contact means 3b out of the module unit 1 and into the position shown in FIG. 2. When the module unit 2 is pulled away, from the module unit 1 i.e. moved in a direction transverse to direction N, the contact surfaces rub against each other until they are disconnected, and the flexible means 8 pull the mobile contact means 3b back to the biased position within the module unit 1, as shown in FIG. 1. Any appropriate means, e.g. a thin circuit card, can function as the flexible means 8.

Information, e.g. electronic information, can be transmitted to and from the fixed contact means 3a by means of a cable 6, for example. Correspondingly, electronic information can be transmitted to or from the mobile contact means by means of a cable 7, for example. The contact surfaces are naturally made of a material that conducts electricity. If necessary, the contact means 3b can be provided with a protection 9 against contact, which prevents a short circuit.

The embodiment described above is not intended to restrict the invention in any way, but the invention may be modified quite freely within the scope of the claims. It is thus clear that the arrangement of the invention or its details need not be identical to the those shown in the figures, but other solutions are also possible. In the example of the figures, the fixed contact means is arranged in the mobile module unit and the mobile contact means is arranged in the stationary

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module unit. This is, however, not the only alternative. The fixed contact means may also be arranged in the stationary module unit and the mobile contact means in the mobile module unit. It is also obvious that both module units can be units which are mobile in relation to each other, etc. Within the scope of the invention it is also possible to arrange both contact means so that they are mobile. In such applications the contact means can be arranged so that they do not move or are not released until the mobile module unit has moved into a certain position with respect to the immobile module unit. The contact means can be arranged to lock and to be released for example with mechanical means, which are guided on the basis of the position of the mobile module unit. Even though the invention has been described above in connection with an embodiment utilizing electronic data transmission, the invention is not, in any way limited to that application. The invention can also be applied in connection with optical data transmission, as best illustrated in FIG. 5 for example.

What is claimed is:

1. An electrical connector arrangement for use in connection with anaesthetic devices having at least a first module unit and a second module unit integrated to function together, wherein data transmission between the first module unit and the second module unit is carried out by the connector arrangement, the connector arrangement comprising:

a first contact arranged in the first module unit, the first contact being mounted on a flexible member for movement into and out of the first module unit, the flexible member being biased to normally position the first contact within the first module unit;

a second contact arranged in the second module unit; and wherein one of the first contact and the second contact includes a magnetic member such that when the first module unit and the second module unit are moved close together, the magnetic force of the magnetic member moves the first contact out of the first module unit against the bias of the flexible member and into contact with the second contact, wherein the movement of the first contact out of the first module unit is transverse to a movement of the first module unit relative to the second module unit.

2. The connector arrangement of claim 1 wherein the second contact is fixed in the second module unit.

3. The connector arrangement of claim 1 wherein the movement of the first contact into contact with the second contact is provided by the magnetizing force of the magnetic member arranged in one of the first and second contacts and a magnetic material arranged in the other of the first and second contacts.

4. The connector arrangement of claim 1 wherein both the first contact and the second contact include a magnetic member.

5. The connector arrangement of claim 1 wherein the first contact and the second contact are formed to transmit information electronically.

6. The connector arrangement of claim 1 wherein the first contact and the second contact are formed to transmit information optically.

7. An electrical connector arrangement connecting anaesthetic devices having a vaporizer casing of an anaesthetic unit and an anaesthetic vaporizer cassette integrated to function together, wherein data transmission between the vaporizer casing and the anaesthetic vaporizer cassette is carried out by the connector arrangement, the connector arrangement comprising: